ABSTRACT OF THE DISCLOSURE

A low-noise output buffer for a digital signal is based on an analog amplifier having bandwidth greater than the switching rate of the digital logic signal. A converter circuit converts the digital logic signal to a ramp signal provided as an input to the analog amplifier. The ramp signal has a slope determined by a bias current and an input capacitance of the analog amplifier. The bias current is generated by a bias circuit such that the bias current varies as the input capacitance of the analog amplifier varies due to variations in the manufacturing process. Therefore, the slope of the ramp signal remains substantially constant despite the variations in the manufacturing process. In particular, the slope of the ramp signal is not undesirably steep even when the buffer is made by a worst-case "strong" process.

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